

Astronomical Calendar 2018

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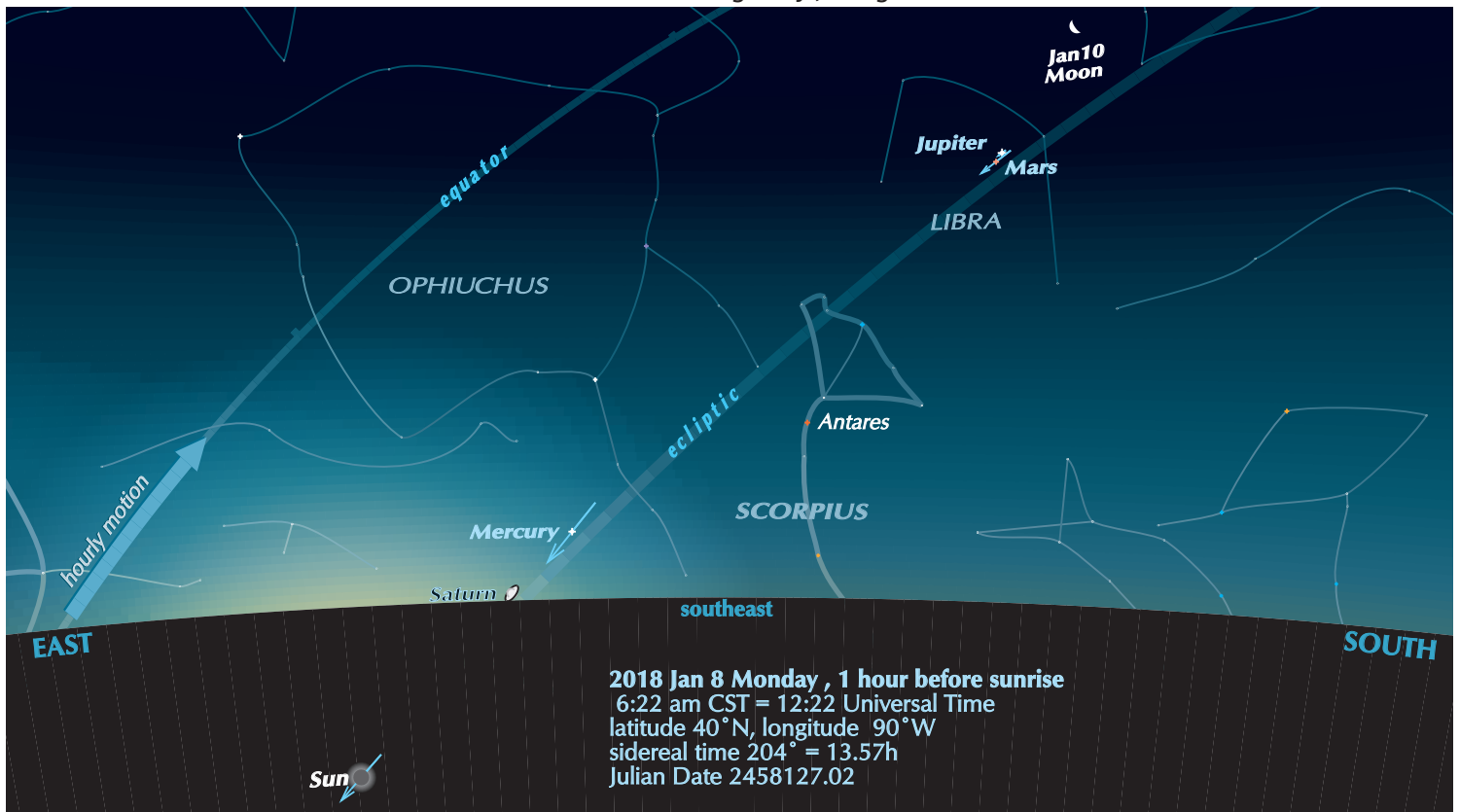
This document will be augmented and improved from time to time.

Hours and minutes are given in Universal Time.

The left column gives the Julian Date (number of days from 4713 B.C. Jan. 1 noon), a convenient system that allows computing the lapse of time between events by subtraction.

Explanation of terms can be found in our glossary book *Albedo to Zodiac*, and there is more about each planet or other topic in *The Astronomical Companion*.

Julian Date		UT	
2458120.325	2018 Jan 1 Mon	20	Mercury at greatest elongation west , 22.6° from the Sun.
2458120.409		21:49	Perigee only 4.6 hours before Full Moon.
2458120.417		21:49	Moon at perigee; distance 55.91 Earth-radii.
2458120.600	2018 Jan 2 Tue	22	Moon nearest in year, 55.91 Earth-radii (356584 km).
2458121.030		2:24	Full Moon.
2458121.298		13	Uranus stationary in longitude.
		19	Uranus stationary in right ascension; resumes direct (eastward) motion.
2458121.779	2018 Jan 3 wed	7	Earth at perihelion, 0.98329 AU from Sun.
2458122.826	2018 Jan 4 Thu	7:50	Moon at ascending node (longitude 135.2°).
2458125.518	2018 Jan 7 SUN	0	Mars 0.20° S.S.W. of Jupiter , about 59° from the sun in the morning sky; magnitudes 1.4 and -1.8.



2458127.434	2018 Jan 8 Mon	22:25	Last Quarter Moon.
2458127.651	2018 Jan 9 Tue	4	Pluto at conjunction with the sun.

2458127.764			6	Venus at superior conjunction with the Sun, 1.711 AU from the Earth.
2458127.852			8	Venus 1.2° S. of Pluto , less than 1° from the Sun .
2458131.739	2018 Jan 13	SAT	6	Mercury 0.64° S. of Saturn , about 20° from the Sun in the morning sky; magnitudes -0.3 and 0.5.
2458133.583	2018 Jan 15	Mon	2	Moon farthest in year, 63.73 Earth-radii (406466 km).
2458133.592			2	Moon at apogee; distance 63.73 Earth-radii.
2458133.606			3	Mercury at descending node through the ecliptic plane.
2458135.595	2018 Jan 17	Wed	2:17	New Moon. Beginning of lunation 1176.
2458137.104	2018 Jan 18	Thu	14:30	Moon at descending node (longitude 314.9°).
2458137.499			24	Mercury at greatest declination south (-23.5°).
2458138.338	2018 Jan 19	Fri	20	Sun enters Capricornus, at longitude 299.71° on the ecliptic.
2458138.632	2018 Jan 20	SAT	3	Sun enters the astrological sign Aquarius, i.e. its longitude is 300°.
2458142.102	2018 Jan 23	Tue	14	Venus at aphelion, 0.7283 AU from the Sun.
2458143.302	2018 Jan 24	Wed	19	Mercury 1.5° S. of Pluto , about 15° from the Sun in the morning sky; magnitudes -0.4 and 14.3.
2458143.430			22:19	First Quarter Moon.
2458143.973	2018 Jan 25	Thu	11	Mercury at aphelion, 0.4667 AU from the Sun.
2458148.878	2018 Jan 30	Tue	9	Mars and Uranus at heliocentric opposition Their heliocentric longitudes are 207.6° and 27.6°.
2458148.908			9:48	Moon at perigee; distance 56.28 Earth-radii.
2458149.731	2018 Jan 31	Wed	6	Dwarf planet or asteroid 1 Ceres at opposition. Magnitude 6.9.
2458150.060			13:27	Full Moon.
				Total eclipse of the Moon.
2458150.282	2018 Jan 31	Wed	18:46	Moon at ascending node (longitude 134.9°).
2458153.485	2018 Feb 3	SAT	24	Middle of eclipse season: Sun is at same longitude as Moon's descending node, 315.1°.
2458157.163	2018 Feb 7	Wed	15:55	Last Quarter Moon.
2458160.471	2018 Feb 10	SAT	23	Jupiter at west quadrature.
2458160.909	2018 Feb 11	SUN	10	The equation of time is at minimum for the year, -14.24 minutes.
2458161.095			14	Moon at apogee; distance 63.61 Earth-radii.
2458161.586	2018 Feb 12	Mon	2	Mars 5.1° N. of Antares , about 73° from the Sun in the morning sky; magnitudes 1.0 and 1.0.
2458164.234	2018 Feb 14	Wed	18	Mercury at greatest latitude south of the ecliptic plane (-7.0°).
2458164.348			20	Venus at greatest latitude south of the ecliptic plane (-3.4°).
2458164.383			21:12	Moon at descending node (longitude 315.0°).
2458165.379	2018 Feb 15	Thu	21:06	New Moon. Beginning of lunation 1177.
				Partial eclipse of the Sun.
2458166.115	2018 Feb 16	Fri	15	Sun enters Aquarius, at longitude 327.88° on the ecliptic.
2458167.009	2018 Feb 17	SAT	12	Mercury at superior conjunction with the Sun, 1.384 AU from the Earth.
2458168.221	2018 Feb 18	SUN	17	Sun enters the astrological sign Pisces, i.e. its longitude is 330°.
2458171.278	2018 Feb 21	Wed	19	Venus 0.54° S.S.E. of Neptune, 11° and 10° from the Sun in the evening sky; magnitudes -3.9 and 8.0.
2458172.839	2018 Feb 23	Fri	8:08	First Quarter Moon.
2458175.030	2018 Feb 25	SUN	13	Mercury 0.43° S.S.E. of Neptune, only about 7d from the Sun .
2458177.108	2018 Feb 27	Tue	14:36	Moon at perigee; distance 57.06 Earth-radii.

2458177.711	2018 Feb 28 Wed	5:04	Moon at ascending node (longitude 134.9°).	
2458179.535	2018 Mar 2 Fri	0:51	Full Moon.	
2458181.408	2018 Mar 3 SAT	22	Mars and Jupiter at heliocentric conjunction. Their heliocentric longitude is 223.3°.	
2458181.735	2018 Mar 4 SUN	6	Mercury 1.1° N.W. of Venus , about 13° from the Sun in the evening sky; magnitudes -1.2 and -3.9.	
2458182.081		14	Neptune at conjunction with the Sun.	
2458183.290	2018 Mar 5 Mon	19	Mercury at ascending node through the ecliptic plane.	
2458183.699	2018 Mar 6 Tue	5	Mercury crosses equator into north hemisphere of sky.	
2458186.671	2018 Mar 9 Fri	4	Jupiter stationary in longitude.	
2458186.735		6	Venus crosses equator into north hemisphere of sky.	
2458186.877		9	Jupiter stationary in right ascension; begins retrograde (westward) motion.	
2458186.973		11:22	Last Quarter Moon.	
2458187.958	2018 Mar 10 SAT	11	Mercury at perihelion, 0.3075 AU from the Sun. Magnitude -0.8.	
2458188.888	2018 Mar 11 SUN	9	Moon at apogee; distance 63.45 Earth-radii.	
2458189.706	2018 Mar 12 Mon	5	Sun enters Pisces, at longitude 351.57° on the ecliptic.	
2458191.658	2018 Mar 14 Wed	3:48	Moon at descending node (longitude 314.5°).	
2458193.126	2018 Mar 15 Thu	15	Mercury at greatest elongation east , 18.4° from the Sun.	
2458194.287	2018 Mar 16 Fri	19	Mars at descending node through the ecliptic plane.	
2458195.051	2018 Mar 17 SAT	13:13	New Moon. Beginning of lunation 1178.	
2458196.831	2018 Mar 19 Mon	8	Mercury 3.8° N.N.W. of Venus , 18° and 17° from the Sun in the evening sky; magnitudes 0.5 and -3.9.	
2458198.170	2018 Mar 20 Tue	16	Mercury at greatest latitude north of the ecliptic plane (7.0°).	
2458198.177		16:15	March or spring or vernal equinox. Sun enters (at the equinox) the astrological sign Aries, i.e. its longitude is 0°.	
2458199.823	2018 Mar 22 Thu	8	Mercury 10.8° w. of Uranus , 16° and 25° from the Sun in the evening sky; magnitudes 1.3 and 5.9.	
2458200.210		17	Mercury stationary in right ascension; begins retrograde (westward) motion.	
2458200.509	2018 Mar 23 Fri	0	Mercury stationary in longitude.	
2458202.149	2018 Mar 24 SAT	15:35	First Quarter Moon.	
2458202.167		16	Mars at west quadrature.	
2458204.230	2018 Mar 26 Mon	17:32	Moon at perigee; distance 57.87 Earth-radii.	
2458204.957	2018 Mar 27 Tue	10:59	Moon at ascending node (longitude 133.7°).	
2458206.530	2018 Mar 29 Thu	1	Venus 0.07° S.S.E. of Uranus , about 19° from the Sun in the evening sky; magnitudes -3.9 and 5.9.	
2458207.091		14	Saturn at west quadrature.	
2458209.025	2018 Mar 31 SAT	12:37	Full Moon.	
2458210.241	2018 Apr 1 SUN	18	Mercury at inferior conjunction with the Sun, 0.597 AU from the Earth and 2.84° north of the Sun.	
2458211.032	2018 Apr 2 Mon	13	Mars 1.3° S. of Saturn , about 94° from the Sun in the morning sky; magnitudes 0.3 and 0.6.	
2458216.731	2018 Apr 8 SUN	6	Moon at apogee; distance 63.36 Earth-radii.	
2458216.805		7:20	Last Quarter Moon.	
2458218.840	2018 Apr 10 Tue	8:10	Moon at descending node (longitude 312.6°).	
2458220.638	2018 Apr 12 Thu	3	Venus at ascending node through the ecliptic plane.	
2458221.575	2018 Apr 13 Fri	2	Mercury at descending node through the ecliptic plane.	
2458222.657	2018 Apr 14 SAT	4	Mercury stationary in right ascension; resumes direct (eastward) motion.	

2458223.886	2018 Apr 15	SUN	9	Mercury stationary in longitude.
2458224.156			16	The equation of time is 0.
2458224.582	2018 Apr 16	Mon	1:59	New Moon. Beginning of lunation 1179.
2458224.661			4	Saturn 12.1° W. of Pluto , ***° and -95° from the Sun in the morning sky; magnitudes 0.5 and 14.2.
2458226.496	2018 Apr 17	Tue	24	Saturn at aphelion, 10.0657 AU from the Sun.
2458226.513	2018 Apr 18	Wed	0	Saturn stationary in right ascension; begins retrograde (westward) motion.
2458226.521			1	Saturn stationary in longitude.
2458227.085			14	Uranus at conjunction with the Sun.
2458227.686	2018 Apr 19	Thu	4	Sun enters Aries, at longitude 29.08° on the ecliptic.
2458228.633	2018 Apr 20	Fri	3	Sun enters the astrological sign Taurus, i.e. its longitude is 30°.
2458229.109			14:36	Moon at perigee; distance 57.81 Earth-radii.
2458230.582	2018 Apr 22	SUN	2	Pluto stationary in longitude.
2458231.116			15	Pluto stationary in right ascension; begins retrograde (westward) motion.
2458231.407			21:46	First Quarter Moon.
2458231.942	2018 Apr 23	Mon	11	Mercury at aphelion, 0.4667 AU from the Sun.
2458232.015			12:21	Moon at ascending node (longitude 131.2°).
2458233.490	2018 Apr 24	Tue	24	Venus 3.5° S.S.E. of Pleiades , about 26° from the Sun in the evening sky; magnitudes -3.9 and 2.9.
2458234.732	2018 Apr 26	Thu	6	Mars 1.4° S. of Pluto , about 105° from the Sun in the morning sky; magnitudes -0.3 and 14.2.
2458236.972	2018 Apr 28	SAT	11	Dwarf planet or asteroid 1 Ceres at perihelion, 2.5595 AU from the Sun. Magnitude 8.4.
2458238.261	2018 Apr 29	SUN	18	Mercury at greatest elongation west , 27.0° from the Sun.
2458238.540	2018 Apr 30	Mon	0:58	Full Moon.
2458241.268	2018 May 2	Wed	18	Venus 6.4° N. of Aldebaran , about 28° from the Sun in the evening sky; magnitudes -3.9 and 0.9.
2458244.517	2018 May 6	SUN	0	Moon at apogee; distance 63.41 Earth-radii.
2458245.932	2018 May 7	Mon	10:22	Moon at descending node (longitude 309.6°).
2458246.591	2018 May 8	Tue	2:10	Last Quarter Moon.
2458247.502	2018 May 9	Wed	0	Asteroid 4 Vesta at perihelion, 2.1517 AU from the Sun. Magnitude 6.3.
2458247.520			0	Jupiter at opposition. Magnitude -2.5.
2458248.998	2018 May 10	Thu	12	Jupiter nearest to Earth (4.400 AU).
2458252.024	2018 May 13	SUN	13	Mercury 2.2° S.S.E. of Uranus , about 23° from the Sun in the morning sky; magnitudes -0.2 and 5.9.
2458252.203			17	Mercury at greatest latitude south of the ecliptic plane (-7.0°).
2458252.638	2018 May 14	Mon	3	The equation of time reaches a shallow maximum of 3.65 minutes.
2458252.803			7	Sun enters Taurus, at longitude 53.46° on the ecliptic.
2458253.992	2018 May 15	Tue	11:49	New Moon. Beginning of lunation 1180.
2458254.463			23	Venus at perihelion, 0.7184 AU from the Sun. Magnitude -4.0.
2458256.379	2018 May 17	Thu	21:05	Moon at perigee; distance 57.04 Earth-radii.
2458259.052	2018 May 20	SUN	13:15	Moon at ascending node (longitude 128.4°).
2458259.594	2018 May 21	Mon	2	Sun enters the astrological sign Gemini, i.e. its longitude is 60°.
2458259.907			10	Venus 0.73° N. of M35 cluster , about 32° from the Sun in the evening sky; magnitudes -4.0 and 5.3.
2458260.622	2018 May 22	Tue	3	Autumn equinox on Mars.
2458260.659			3:50	First Quarter Moon.

2458260.739				6	Venus at greatest declination north (25.1°).
2458268.097	2018 May 29	Tue	14:20		Full Moon.
2458268.782	2018 May 30	Wed	7		Mercury 4.5° S.S.E. of Pleiades , only about 8d from the Sun .
2458271.259	2018 Jun 1	Fri	18		Mercury at ascending node through the ecliptic plane.
2458272.191	2018 Jun 2	SAT	17		Moon at apogee; distance 63.55 Earth-radii.
2458272.953	2018 Jun 3	SUN	11		Mercury 5.8° N.N.W. of Aldebaran , only about 4d from the Sun .
2458273.026			12:37		Moon at descending node (longitude 307.1°).
2458275.368	2018 Jun 5	Tue	21		Venus 8.1° S. of Castor , 35° and 37° from the Sun in the evening sky; magnitudes -4.0 and 1.5.
2458275.576	2018 Jun 6	Wed	2		Mercury at superior conjunction with the Sun, 1.322 AU from the Earth.
2458275.927			10		Mercury at perihelion, 0.3075 AU from the sun. Magnitude -2.3.
2458276.139			15		Venus at greatest latitude north of the ecliptic plane (3.4°).
2458276.273			18:33		Last Quarter Moon.
2458277.858	2018 Jun 8	Fri	9		Venus 4.7° S. of Pollux , about 36° from the Sun in the evening sky; magnitudes -4.0 and 1.2.
2458278.667	2018 Jun 9	SAT	4		Mars and Saturn at heliocentric conjunction. Their heliocentric longitude is 275.8°.
2458282.668	2018 Jun 13	Wed	4		The equation of time is 0.
2458283.322			19:44		New Moon. Beginning of lunation 1181.
2458283.384			21		Mercury 0.81° N. of M35 cluster , only about 9d from the Sun .
2458284.435	2018 Jun 14	Thu	22		Mercury at greatest declination north (25.2°).
2458284.495			23:53		Moon at perigee; distance 56.37 Earth-radii.
2458286.139	2018 Jun 16	SAT	15		Mercury at greatest latitude north of the ecliptic plane (7.0°).
2458286.244			17:52		Moon at ascending node (longitude 126.5°).
2458288.322	2018 Jun 18	Mon	20		Neptune stationary in longitude.
2458288.860	2018 Jun 19	Tue	9		Neptune stationary in right ascension; begins retrograde (westward) motion.
2458288.935			10		Asteroid 4 Vesta at opposition. Magnitude 5.3.
2458289.936	2018 Jun 20	Wed	10		Venus 0.69° N.N.E. of Beehive Cluster , about 39° from the Sun in the evening sky; magnitudes -4.0 and 3.7.
2458289.952			10:51		First Quarter Moon.
2458290.922	2018 Jun 21	Thu	10:08		June or summer solstice. Sun enters (at the solstice) the astrological sign Cancer, i.e. its longitude is 90°.
2458291.360	2018 Jun 21	Thu	21		Sun enters Gemini, at longitude 90.43° on the ecliptic.
2458292.805	2018 Jun 23	SAT	7		Mercury 8.2° S. of Castor , 19° and 21° from the Sun in the evening sky; magnitudes -0.5 and 1.5.
2458294.543	2018 Jun 25	Mon	1		Mercury 4.8° S.S.W. of Pollux , 20° and 21° from the Sun in the evening sky; magnitudes -0.4 and 1.2.
2458296.380	2018 Jun 26	Tue	21		Mars stationary in longitude.
2458297.054	2018 Jun 27	Wed	13		Saturn at opposition. Magnitude 0.0.
2458297.704	2018 Jun 28	Thu	4:53		Full Moon.
2458298.077			14		Mars stationary in right ascension; begins retrograde (westward) motion.
2458299.634	2018 Jun 30	SAT	3		Moon at apogee; distance 63.66 Earth-radii.
2458300.198			16:45		Moon at descending node (longitude 306.0°).
2458304.048	2018 Jul 4	Wed	13		Mercury 0.39° S.S.W. of Beehive Cluster , about 25° from the Sun in the evening sky; magnitudes 0.1 and 3.7.

2458305.828	2018 Jul 6 Fri	7:52	Last Quarter Moon.
2458306.207		17	Earth at aphelion, 1.01670 AU from Sun.
2458309.544	2018 Jul 10 Tue	1	Mercury at descending node through the ecliptic plane.
2458309.706		5	Venus 0.99° N.N.E. of Regulus , about 42° from the Sun in the evening sky; magnitudes -4.1 and 1.4.
2458310.194		17	Jupiter stationary in longitude.
2458310.646	2018 Jul 11 Wed	4	Jupiter stationary in right ascension; resumes direct (eastward) motion.
2458311.636	2018 Jul 12 Thu	3	Pluto at opposition. Magnitude 14.2.
2458311.722		5	Mercury at greatest elongation east , 26.4° from the Sun.
2458312.617	2018 Jul 13 Fri	2:48	New Moon. Beginning of lunation 1182. Partial eclipse of the Sun.
2458312.626	2018 Jul 13 Fri	3	Asteroid 2 Pallas at opposition. Magnitude 9.6.
2458312.852		8:27	Perigee only 5.6 hours after New Moon.
		8:27	Moon at perigee; distance 56.04 Earth-radii.
2458313.619	2018 Jul 14 SAT	2:52	Moon at ascending node (longitude 125.9°).
2458319.328	2018 Jul 19 Thu	19:53	First Quarter Moon.
2458319.913	2018 Jul 20 Fri	10	Mercury at aphelion, 0.4667 AU from the Sun.
2458320.537	2018 Jul 21 SAT	1	Sun enters Cancer, at longitude 118.25° on the ecliptic.
2458322.376	2018 Jul 22 SUN	21	Sun enters the astrological sign Leo, i.e. its longitude is 120°.
2458324.260	2018 Jul 24 Tue	18	Mercury 7.6° w. of Regulus, 22° and 28° from the Sun in the evening sky; magnitudes 1.5 and 1.4.
2458324.803	2018 Jul 25 Wed	7	Mercury stationary in right ascension; begins retrograde (westward) motion.
2458325.706	2018 Jul 26 Thu	5	Mercury stationary in longitude.
2458325.753		6	The equation of time reaches a shallow minimum of -6.54 minutes.
2458326.716	2018 Jul 27 Fri	5	Mars at opposition. Magnitude -2.8.
2458326.724		5	Moon at apogee; distance 63.69 Earth-radii.
2458327.348		20:21	Full Moon. Total eclipse of the Moon.
2458327.445	2018 Jul 27 Fri	22:41	Moon at descending node (longitude 305.9°).
2458328.475	2018 Jul 28 SAT	23	Middle of eclipse season: Sun is at same longitude as Moon's ascending node, 125.8°.
2458330.833	2018 Jul 31 Tue	8	Mars nearest to Earth (0.385 AU).
2458332.193	2018 Aug 1 Wed	17	Venus at descending node through the ecliptic plane.
2458335.263	2018 Aug 4 SAT	18:19	Last Quarter Moon.
2458336.600	2018 Aug 6 Mon	2	Venus crosses equator into south hemisphere of sky.
2458337.475		23	Jupiter at east quadrature.
2458338.052	2018 Aug 7 Tue	13	Uranus stationary in longitude.
2458338.206		17	Uranus stationary in right ascension; begins retrograde (westward) motion.
2458339.583	2018 Aug 9 Thu	2	Mercury at inferior conjunction with the Sun, 0.604 AU from the Earth and 4.80° south of the Sun.
2458340.173		16	Mercury at greatest latitude south of the ecliptic plane (-7.0°).
2458341.071	2018 Aug 10 Fri	13:42	Moon at ascending node (longitude 125.9°).
2458341.083		14	Moon shows minimum libration for the year, 0.08°.
2458341.257		18:10	Perigee only 15.8 hours before New Moon.
		18:10	Moon at perigee; distance 56.14 Earth-radii.
2458341.368		21	Sun enters Leo, at longitude 138.18° on the ecliptic.
2458341.915	2018 Aug 11 SAT	9:58	New Moon. Beginning of lunation 1183. Partial eclipse of the Sun.

2458345.712	2018 Aug 15 Wed	5	Venus at theoretical dichotomy, half illuminated as seen from Earth.
2458346.984	2018 Aug 16 Thu	12	Mars at greatest declination south (-26.5°).
2458347.375		21	Moon shows maximum libration for the year, 10.20° .
2458348.217	2018 Aug 17 Fri	17	Venus at greatest elongation east , 45.9° from the Sun.
2458348.826	2018 Aug 18 SAT	7:49	First Quarter Moon.
2458349.011		12	Mercury stationary in right ascension; resumes direct (eastward) motion.
2458349.680	2018 Aug 19 SUN	4	Mercury stationary in longitude.
2458351.603	2018 Aug 21 Tue	2	Mars at greatest latitude south of the ecliptic plane (-1.8°).
2458351.614		3	Mercury 5.4° S.E. of Beehive Cluster , -16° and -20° from the Sun in the morning sky; magnitudes 1.1 and 3.7.
2458353.673	2018 Aug 23 Thu	4	Sun enters the astrological sign Virgo, i.e. its longitude is 150° .
2458353.968		11	Moon at apogee; distance 63.62 Earth-radii.
2458354.703	2018 Aug 24 Fri	4:52	Moon at descending node (longitude 305.9°).
2458356.998	2018 Aug 26 SUN	11:57	Full Moon.
2458357.351		20	Mercury at greatest elongation west , 18.3° from the Sun.
2458358.084	2018 Aug 27 Mon	14	Mars stationary in longitude.
2458358.925	2018 Aug 28 Tue	10	Mars stationary in right ascension; resumes direct (eastward) motion.
2458359.229		17	Mercury at ascending node through the ecliptic plane.
2458359.456		23	Mars 11.3° E.S.E. of Pluto , 143° and 133° from the Sun in the evening sky; magnitudes -2.2 and 14.2 .
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2458362.993	2018 Sep 1 SAT	12	Venus 1.2° S.S.W. of Spica , about 45° from the Sun in the evening sky; magnitudes -4.4 and 1.0 .
2458363.089		14	The equation of time is 0.
2458363.897	2018 Sep 2 SUN	10	Mercury at perihelion, 0.3075 AU from the Sun. Magnitude -0.9 .
2458364.610	2018 Sep 3 Mon	2:38	Last Quarter Moon.
2458366.848	2018 Sep 5 Wed	8	Venus at aphelion, 0.7282 AU from the Sun.
2458367.616	2018 Sep 6 Thu	3	Mercury 1.00° N.N.E. of Regulus , -14° and -13° from the Sun in the morning sky; magnitudes -1.1 and 1.4 .
2458367.888		9	Saturn stationary in right ascension; resumes direct (eastward) motion.
2458367.916		10	Saturn stationary in longitude.
2458368.447		22:43	Moon at ascending node (longitude 125.4°).
2458369.260	2018 Sep 7 Fri	18	Neptune at opposition. Magnitude 7.8.
2458369.558	2018 Sep 8 SAT	1:24	Moon at perigee; distance 56.65 Earth-radii.
2458371.251	2018 Sep 9 SUN	18:02	New Moon. Beginning of lunation 1184.
2458374.108	2018 Sep 12 Wed	15	Mercury at greatest latitude north of the ecliptic plane (7.0°).
2458378.028	2018 Sep 16 SUN	13	Mars at perihelion, 1.3814 AU from the Sun. Magnitude -1.7 .
2458378.469		23:15	First Quarter Moon.
2458378.584	2018 Sep 17 Mon	2	Sun enters Virgo, at longitude 174.15° on the ecliptic.
2458381.548	2018 Sep 20 Thu	1	Moon at apogee; distance 63.48 Earth-radii.
2458381.899		9:34	Moon at descending node (longitude 304.8°).
2458382.568	2018 Sep 21 Fri	2	Mercury at superior conjunction with the Sun, 1.387 AU from the Earth.
2458382.899		10	Venus shows greatest illuminated extent.
2458384.579	2018 Sep 23 SUN	1:54	September of fall or autumn equinox. Sun enters (at the equinox) the astrological sign

					Libra, i.e. its longitude is 180°.
2458385.292	2018 Sep 23	SUN	19		Mercury crosses equator into south hemisphere of sky.
2458386.621	2018 Sep 25	Tue	2:54		Full Moon.
2458386.679			4		Venus brightest; magnitude -4.6.
2458387.491			24		Saturn at east quadrature.
2458389.044	2018 Sep 27	Thu	13		Venus at greatest latitude south of the ecliptic plane (-3.4°).
2458390.508	2018 Sep 29	SAT	0		Venus 13.8° W.S.W. of Jupiter, 35° and 46° from the Sun in the evening sky; magnitudes -4.6 and -1.8.
2458391.700	2018 Sep 30	SUN	5		Pluto stationary in right ascension; resumes direct (eastward) motion.
2458391.843			8		Mars and Neptune at heliocentric conjunction. Their heliocentric longitude is 345.6°.
2458392.226			17		Pluto stationary in longitude.
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2458393.907	2018 Oct 2	Tue	9:46		Last Quarter Moon.
2458395.633	2018 Oct 4	Thu	3:11		Moon at ascending node (longitude 123.5°).
2458396.675	2018 Oct 5	Fri	4		Venus stationary in right ascension; begins retrograde (westward) motion.
2458397.293			19		Venus stationary in longitude.
2458397.438			22:31		Moon at perigee; distance 57.45 Earth-radii.
2458397.513	2018 Oct 6	SAT	0		Mercury at descending node through the ecliptic plane.
2458397.868			9		Mercury 2.0° N.N.E. of Spica, about 11° from the Sun in the evening sky; magnitudes -0.6 and 1.0.
2458400.657	2018 Oct 9	Tue	3:47		New Moon. Beginning of lunation 1185.
2458407.357	2018 Oct 15	Mon	21		winter solstice on Mars.
2458407.607	2018 Oct 16	Tue	3		Venus 6.2° S.S.W. of Mercury, 18° and 17° from the Sun in the evening sky; magnitudes -4.3 and -0.3.
2458407.882			9		Mercury at aphelion, 0.4667 AU from the Sun.
2458408.251			18:01		First Quarter Moon.
2458409.006	2018 Oct 17	wed	12:08		Moon at descending node (longitude 302.2°).
2458409.306			19		Moon at apogee; distance 63.38 Earth-radii.
2458412.338	2018 Oct 20	SAT	20		Saturn at greatest declination south (-22.8°).
2458414.974	2018 Oct 23	Tue	11		Sun enters the astrological sign Scorpius, i.e. its longitude is 210°.
2458415.523	2018 Oct 24	wed	1		Uranus at opposition. Magnitude 5.7.
2458416.199			16:46		Full Moon.
2458417.343	2018 Oct 25	Thu	20		Pluto at descending node through the ecliptic plane.**
2458418.091	2018 Oct 26	Fri	14		Venus at inferior conjunction with the Sun, 0.272 AU from the Earth and 6.26° south of the Sun.
2458420.773	2018 Oct 29	Mon	7		Mercury 3.1° S.S.W. of Jupiter , about 22° from the Sun in the evening sky; magnitudes -0.2 and -1.7.
2458422.657	2018 Oct 31	wed	3:46		Moon at ascending node (longitude 120.6°).
2458422.782			7		Sun enters Libra, at longitude 217.80° on the ecliptic.
2458423.195			16:41		Last Quarter Moon.
2458423.350			20:24		Moon at perigee; distance 58.05 Earth-radii.
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2458425.881	2018 Nov 3	SAT	9		The equation of time is at maximum for the year, 16.48 minutes.
2458428.142	2018 Nov 5	Mon	15		Mercury at greatest latitude south of the ecliptic plane (-7.0°).
2458429.140	2018 Nov 6	Tue	15		Mercury at greatest elongation east , 23.3° from the Sun.
2458430.168	2018 Nov 7	wed	16:02		New Moon. Beginning of lunation 1186.
2458431.993	2018 Nov 9	Fri	12		Mercury 1.8° N. of Antares , about 23° from the Sun in the evening sky; magnitudes -0.1 and 1.0.
2458435.060	2018 Nov 12	Mon	13		Mercury at greatest declination south (-24.8°).

2458436.088	2018 Nov 13 Tue	14:07	Moon at descending node (longitude 299.2°).
2458436.631	2018 Nov 14 Wed	3	Venus stationary in right ascension; resumes direct (eastward) motion.
2458437.163		16	Moon at apogee; distance 63.40 Earth-radii.
2458437.335		20	Venus 1.3° E. of Spica , -27° and -28° from the Sun in the morning sky; magnitudes -4.5 and 1.0.
2458438.120	2018 Nov 15 Thu	14:53	First Quarter Moon.
2458438.951	2018 Nov 16 Fri	11	Venus stationary in longitude.
2458439.561	2018 Nov 17 SAT	1	Mercury stationary in longitude.
2458439.705		5	Mercury stationary in right ascension; begins retrograde (westward) motion.
2458440.003		12	Asteroid 3 Juno at opposition. Magnitude 7.4.
2458444.655	2018 Nov 22 Thu	4	Mercury 4.0° N.N.E. of Antares , 12° and 11° from the Sun in the evening sky; magnitudes 2.0 and 1.0.
2458444.876		9	Sun enters the astrological sign Sagittarius, i.e. its longitude is 240°.
2458445.335		20	Venus at ascending node through the ecliptic plane.
2458445.736	2018 Nov 23 Fri	5:40	Full Moon.
2458445.965		11	Asteroid 3 Juno at perihelion, 1.9833 AU from the Sun. Magnitude 7.5.
2458445.992		12	Sun enters Scorpius, at longitude 241.14° on the ecliptic.
2458446.657	2018 Nov 24 SAT	4	Jupiter farthest from Earth (6.347 AU).
2458447.198		17	Mercury at ascending node through the ecliptic plane.
2458447.447		23	Neptune stationary in longitude.
2458447.745	2018 Nov 25 SUN	6	Neptune stationary in right ascension; resumes direct (eastward) motion.
2458448.778	2018 Nov 26 Mon	7	Jupiter at conjunction with the Sun.
2458449.005		12:07	Moon at perigee; distance 57.48 Earth-radii.
2458449.720	2018 Nov 27 Tue	5:17	Moon at ascending node (longitude 118.0°).
2458449.881		9	Mercury at inferior conjunction with the Sun, 0.678 AU from the Earth and 0.91° north of the Sun.
2458450.374		21	Mercury 0.42° N.N.E. of Jupiter, only about 1d from the Sun .
2458451.866	2018 Nov 29 Thu	9	Mercury at perihelion, 0.3075 AU from the Sun. Magnitude 3.9.
2458452.514	2018 Nov 30 Fri	0:20	Last Quarter Moon.
2458452.600		2	Venus brightest; magnitude -4.7.
2458452.811		7	Sun enters Ophiuchus, at longitude 248.03° on the ecliptic.
2458454.484	2018 Dec 1 SAT	24	Venus shows greatest illuminated extent.
2458455.523	2018 Dec 3 Mon	1	Mars at east quadrature.
2458459.345	2018 Dec 6 Thu	20	Mercury stationary in right ascension; resumes direct (eastward) motion.
2458459.387		21	Mercury stationary in longitude.
2458459.806	2018 Dec 7 Fri	7:21	New Moon. Beginning of lunation 1187.
2458460.090		14	Mars 0.04° N.N.W. of Neptune, about 88° from the Sun in the evening sky; magnitudes 0.1 and 7.9.
2458462.000	2018 Dec 9 SUN	12	Moon at southernmost declination in year, -21.54°.
2458462.077		14	Mercury at greatest latitude north of the ecliptic plane (7.0°).
2458463.250	2018 Dec 10 Mon	18:00	Moon at descending node (longitude 297.2°).
2458465.015	2018 Dec 12 Wed	12	Moon at apogee; distance 63.53 Earth-radii.
2458466.345	2018 Dec 13 Thu	20	Mars and Uranus at heliocentric conjunction. Their heliocentric longitude is 31.2°.
2458467.971	2018 Dec 15 SAT	11	Mercury at greatest elongation west , 21.3° from the

				Sun.
2458467.992			11:48	First Quarter Moon.
2458471.086	2018 Dec 18 Tue	14		Sun enters Sagittarius, at longitude 266.60° on the ecliptic.
2458474.329	2018 Dec 21 Fri	20		Mercury 0.83° N.N.E. of Jupiter , about 20° from the Sun in the morning sky; magnitudes -0.4 and -1.8 .
2458474.434			22:25	December or winter solstice. Sun enters (at the solstice) the astrological sign Capricornus, i.e. its longitude is 270° .
2458475.026	2018 Dec 22 SAT	13		Mercury 6.0° N.N.E. of Antares , -20° and -21° from the Sun in the morning sky; magnitudes -0.4 and 1.0 .
2458475.243			17:49	Full Moon.
2458476.000	2018 Dec 23 SUN	12		Moon at northernmost declination in year, 21.55° .
2458476.275			19	Jupiter 5.2° N. of Antares , about 22° from the Sun in the morning sky; magnitudes -1.8 and 1.0 .
2458476.915	2018 Dec 24 Mon	9:57		Moon at perigee; distance 56.61 Earth-radii.
2458476.997			11:55	Moon at ascending node (longitude 116.9°).
2458477.904	2018 Dec 25 Tue	10		The equation of time is 0 .
2458479.179	2018 Dec 26 wed	16		Venus at perihelion, 0.7185 AU from the Sun. Magnitude -4.5 .
2458481.900	2018 Dec 29 SAT	9:36		Last Quarter Moon.